

Notice of Allowability

Application No.

10/612,092

Examiner

Arnel C. Lavarias

Applicant(s)

TOGINO, TAKAYOSHI

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/22/07.
2. ☒ The allowed claim(s) is/are 16-17, 19-24 (renumbered 1-8).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Response to Amendment

1. The amendments to Claims 16-17, 19, 21-24 in the submission dated 6/22/07 are acknowledged and accepted.
2. The cancellation of Claims 1-15, 18, 25-33 in the submission dated 6/22/07 is acknowledged and accepted.

Response to Arguments

3. In view of the amendments made to the claims above, the rejections in Sections 9-10 of the Office Action dated 3/26/07 are respectfully withdrawn.

Allowable Subject Matter

4. Claims 16-17, 19-24 are allowed.

REASONS FOR ALLOWANCE

5. The following is an examiner's statement of reasons for allowance:

Claim 16 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest a projection viewing system, as generally set forth in Claim 16, the system including, in combination with the features recited in Claim 16, zero-order light leaving said diffusing plate is kept from being incident on an exit pupil of said projection viewing system.

Claim 17 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest a projection viewing system, as generally set forth in Claim 17, the system including, in combination with the features recited in Claim 17, zero-order light leaving said diffusing plate propagates toward an exit pupil position of said projection viewing system, and is incident on a portion of said exit pupil spaced away from a center of said exit pupil at a distance of at least 1/2 of the diameter of said exit pupil.

Claim 19 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest a projection viewing system, as generally set forth in Claim 19, the system including, in combination with the features recited in Claim 19, the following condition is satisfied: $\gamma > 1^\circ$ where γ is a d-line angle of flexion of an optical axis by said diffusing plate. Claim 20 is dependent on Claim 19, and hence is allowable for at least the same reasons Claim 19 is allowable.

Claim 21 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest a projection viewing system, as generally set forth in Claim 21, the system including, in combination with the features recited in Claim 21, a difference in an angle of diffraction of an optical axis by said diffusing plate between 700 nm wavelength light and 400 nm wavelength light is up to 18° .

Claim 22 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest a projection viewing system, as generally set forth in Claim 22, the system including, in combination with the features

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recited in Claim 22, at a position of the exit pupil of said projection viewing system, a difference in a position of incidence between a 700 nm wavelength optical axis and a 400 nm wavelength optical axis is up to 1/2 of a diameter of said exit pupil.

Claim 23 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest a projection viewing system, as generally set forth in Claim 23, the system including, in combination with the features recited in Claim 23, the following condition is satisfied: $0^\circ < \beta < 45^\circ$ where β is an angle of incidence of a d-line optical axis on said concave mirror.

Claim 24 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest a projection viewing system, as generally set forth in Claim 24, the system including, in combination with the features recited in Claim 24, the following condition is satisfied: $0.01 < \frac{\gamma}{\beta} < 1,000$ where γ is an angle of flexion of a d-line optical axis by said diffusing plate, and β is an angle of incidence of a d-line optical axis on said concave mirror.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 571-272-2315. The examiner can normally be reached on M-F 9:30 AM - 6 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Arnel C. Lavarias
Primary Examiner
Group Art Unit 2872
8/6/07


ARNEL LAVARIAS
PRIMARY PATENT EXAMINER